



**MEMORANDUM OF UNDERSTANDING**  
**Between**  
**THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**And**  
**STONY BROOK UNIVERSITY HOSPITAL**

**I. Purpose**

The purpose of this Memorandum of Understanding (MOU) is to formally create a mutually beneficial working relationship between the United States Environmental Protection Agency (EPA) and Stony Brook University Hospital (SBUH).

**II. Background**

The mission of the Environmental Protection Agency (EPA) is to protect human health and the environment. EPA works to develop and enforce regulations that implement environmental laws enacted by Congress. In recent years, between 40 and 50 percent of EPA's enacted budgets have provided direct support through grants to State environmental programs. At laboratories located throughout the nation, the Agency works to assess environmental conditions and to identify, understand, and solve current and future environmental problems; integrate the work of scientific partners such as nations, private sector organizations, academia and other agencies; and provide leadership in addressing emerging environmental issues and in advancing the science and technology of risk assessment and risk management. The Agency works through its headquarters and regional offices partnering with over 10,000 industries, businesses, non-profit organizations, and state and local governments, on over 40 voluntary pollution prevention programs and energy conservation efforts. EPA advances educational efforts to develop an environmentally conscious and responsible public, and to inspire personal responsibility in caring for the environment.

Stony Brook University Hospital's mission is to improve the lives of our patients, families and communities, educate skilled healthcare professionals and conduct research that expands clinical knowledge. Our vision is to be a world class healthcare institution, recognized for excellence in patient care, research and healthcare education. We want to continue to be recognized as an environmentally conscious healthcare institution using our resources wisely, reducing solid and hazardous waste and increasing our recycling. In our Hospital's Environmental Policy Statement, we commit to protecting the health and well being of our patients, staff and the community where we live and work by

continuously improving our programs to reduce waste, minimize the use of hazardous materials, prevent pollution of our valuable natural resources, increase recycling, comply with all environmental regulations, and work toward sustainability. We have a corporate social responsibility to protect the environment and are committed to reducing our carbon footprint. Our physicians take an oath “to do no harm” and as a healthcare institution we are dedicated to doing what is good for the environment and our patients/staff. We are committed to the concept of Sustainable Healthcare, which requires us to create action plans to eliminate mercury, reduce and recycle solid waste, reduce energy and water consumption, reduce regulated and chemical waste, create a healing environment and establish green purchasing policies.

The EPA and Stony Brook University Hospital will, through this MOU, work together to further progress in sustainable development.

### **III. Memorandum of Understanding (MOU) Commitments**

The Parties recognize the importance of collaboration to serve the needs of society through proper design, construction, and management. Consequently, the Parties are hereby establishing a working relationship, and undertaking certain commitments with respect to Hospital infrastructure and operations as they relate to environmental issues, including, but not limited to the following specific undertakings related to Hospital facilities and programming of Stony Brook University Hospital.

#### **A. Stony Brook University Hospital Facilities and Green Operations**

##### **Municipal Solid Waste (MSW) Recycling and Re-use**

###### *WasteWise Program*

SBUH will join EPA’s WasteWise program, which provides technical assistance to members for auditing MSW generation rates and developing MSW reduction and recycling plans. Members also set their own recycling goals. The Hospital will also utilize the WebWare software to measure the effectiveness of its recycling efforts.

###### *Paper, Cardboard and Bottle/Can Recycling*

Paper, bottle and can recycling have been implemented throughout SBUH with collection containers being placed in the break rooms, conference rooms and waiting areas. We expect to recycle 10,000 pounds of bottles and cans annually. A cardboard compactor will be purchased and installed at the loading dock to remove cardboard from the solid waste stream. SBUH will recycle 180 tons of cardboard annually, eliminating it from disposal in landfills.

### *Participation in the RecycleMania Yearly Contest*

SBUH will continue to participate in the RecycleMania event supported by EPA. To date, SBUH has participated for 3 years; we have documented over 840,000 lbs. in 2007 and 2008 of MSW recycled as part of the contest.

### *Blue Wrap Reduction*

The Hospital will reduce blue wrap use by switching to a reusable rigid container system for the packaging, transportation and storage of instruments prior to, during, and after sterilization.

### *Electronics Waste (E-Waste) Recycling.*

Computer components/CRTs contain hazardous substances, which can harm the environment if they are simply put out with the trash. These items and similar ones contain both lead and mercury, which make their way into landfills or incinerators. Substantial cost and effort are required then to assure that these hazardous substances are not released into the air or water.

The University has contracted with a computer and electronics recycling firm to properly handle the retirement of all E-Waste that is not leased or returned to the supplier.

### *Pallets*

SBUH utilize plastic pallets that are reusable. Regular wood pallets are collected and recycled. Those that are damaged/broken are shredded and turned into mulch, along with other woody debris from the campus. The University has been managing woody debris in this manner for close to 10 years. In addition to the conservation of forest resources, this process creates a high quality mulch product that is used throughout campus in various landscaping and aesthetic improvement applications.

### *Food Waste*

SBUH will perform a feasibility study to determine if food and kitchen waste can be composted either on-site or sent to a composting facility. Compost would be used for on-site landscaping needs or made available to other entities. The collection of grease and cooking oils will also be assessed for potential bio-fuel uses.

### **Energy Conservation and the ENERGY STAR Program**

Under the MOU, SBUH will join the EPA ENERGY STAR Program, which offers technical assistance for conducting energy audits, benchmarking energy use and establishing an energy reduction plan. The University will also support the 10% ENERGY STAR reduction goal.

The University is also participating in a program, offered by the New York State Energy Research & Development Authority, to implement energy conservation projects and fund these projects through the savings on our utility bills. Our energy services company has conducted a comprehensive energy audit for Stony Brook University. Information collected from the audit will help us make the campus energy efficient and practical through the operating procedures. These conservation measures will reduce Stony Brook University's expenses for energy, water, and operation and maintenance.

### **Incorporating Green Technologies in New and Renovated Buildings and Leadership in Energy and Environmental Design (LEED)**

All new facilities will be designed consistent with LEED Silver requirements. When applicable, minor renovations will retrofit HVAC control boxes with more efficient equipment and utilize energy efficient lighting fixtures, including the implementation of more environmentally friendly construction materials (carpeting, ceilings and furniture).

### **Re-Use of Industrial Materials**

SBUH will attempt to utilize construction materials with recycled material content.

SBUH will consider the use of coal combustion products, where appropriate, in future construction projects. The use of coal combustion products in place of Portland cement significantly reduces energy and CO<sub>2</sub> emissions as well as concrete costs, and forms a superior product.

### **Water Conservation and Stormwater Management and Re-use**

SBUH will attempt to utilize WaterSense products, where appropriate, in the renovation or upgrade of existing buildings as well as in new buildings planned for SBUH. We install low flow toilets and faucets in new construction and renovations. Electric eye toilets are installed in remodels and infrared faucets were installed in the Hospital's Major Modification Project. The use of WaterSense approved products ensures that SBUH will be conserving its precious drinking water sources.

SBUH will investigate the feasibility of installing rainwater collection systems to help minimize the use of potable water for irrigation and cooling tower make-up water. Infiltration of rainwater via dry wells, bio swales and other landscaping methods as well as the use of pervious pavement and the installation of green roofs will also be investigated.

### **Reprocessing Medical Equipment**

SBUH reprocesses oxisensors, blades, burrs, bits, guide wires and catheters.

## **Reusable Sharps Containers**

SBUH utilizes reusable sharps containers to reduce the disposal of plastic by incineration. The disposal of plastics is harmful to the environment and can introduce hazardous toxins into the air. Reusable sharps containers reduce by 90% the number of containers that would have to be incinerated along with their contents. Annually, this eliminates an estimated 48,200 containers from incineration. The contents of each container are sterilized, ground and recycled.

## **Proper Management and Minimization of Hazardous and Universal Waste**

### *Fluorescent Bulbs and Non-Alkaline Batteries*

SBUH collects and recycles fluorescent lamps and non-alkaline batteries.

### *Laboratory Solvents*

SBUH laboratories recycle ethanol and xylene. Other chemicals of concern may also be assessed for recycling or substitution opportunities.

### *Mercury, DEHP/PVC Reduction*

SBUH is committed to reducing and eliminating mercury and DEHP/PVC throughout the Hospital. The Hospital will include a statement on its Bid/Quote Content Certification Form asking vendors if their product contains mercury. Our DEHP/PVC-Free Pledge has committed the Hospital to: 1) continuing to inventory our products to identify sources of DEHP; 2) eliminating the use of DEHP/PVC products in our NICU unless no reasonable alternatives are available; 3) communicating our commitment to PVC/DEHP-free purchasing to our staff, contractors, subcontractors and vendors; and 4) collaborating hospital-wide to urge support for implementation of PVC and DEHP reduction measures.

### *Toner and Ink Recycling*

SBUH has a laser toner cartridge recycling program. We recycle our toner and inkjet cartridges by sending them back to the manufacturer or, through interoffice mail, to the University's Department of Recycling/Resource Management.

## **Clean Construction Equipment and Clean Fuel Use**

SBUH will utilize clean construction equipment that reduces pollution from conventional diesel fuel-powered construction vehicles and equipment by requiring the use of Ultra-Low Sulfur Diesel (ULSD) fuel and/or best available pollution control retrofit technologies.

## **Alternative Energy and EPA's GreenPower Partnership**

SBUH will seek to identify renewable energy opportunities utilizing solar photovoltaic (PV) systems or wind turbines, where feasible. External sources of funding are needed to implement future renewable energy projects and the availability and applicability of such funding sources are being evaluated. EPA's GreenPower Partnership will also be studied for possible enrollment.

## **EPA GreenScapes**

Under this MOU, the University will utilize EPA's GreenScapes recommendations to reduce the need to replace landscaping materials and high maintenance plants, work towards reusing landscape materials where possible, recycle organic materials and make decisions to specify and purchase products that are environmentally preferable.

The University will utilize EPA's GreenScapes Tip Sheets and Rebuy Checklist to develop its own written GreenScapes program. The Program will keep records of Waste, Energy, Fertilizers, Pesticides and Climate Change activities related to its grounds keeping efforts.

## **B. Status Reporting**

SBUH will submit a status report to EPA twice per year starting six months after the official signing of the MOU. The report will include an update on the various activities identified in the agreement. EPA will use this data to determine the environmental benefits associated with SBUH's "green" activities.

## **IV. Terms and Conditions**

This MOU is not a contractual or a financial obligation instrument. Nothing in this MOU shall obligate EPA or SBUH to expend appropriations or to enter into any contract or other obligation or be cited as the basis for the promise or transfer of funds. Collaboration under this MOU shall be in accordance with applicable statutes and regulations.

This MOU does not restrict EPA or SBUH from participating in similar activities or arrangements with other entities or Federal agencies.

Either Party may unilaterally withdraw at any time from this MOU by transmitting a signed writing to that effect to the other Party. By mutual agreement, which may be either formal or informal, each party may modify the list of intended activities set forth above, and/or determine the practical manner by which the goals, purposes and activities set forth in this MOU will be accomplished. Modification to other written parts of this MOU must be made in writing and signed by either the Parties or their designees.

Nothing in this MOU shall be construed to authorize or permit any violation of any Federal, State or local law, including, but not limited to, any environmental law administered and/or enforced by EPA. Access to all documents generated pursuant to the activities set forth in this MOU that constitute agency records for purposes of the Freedom of Information Act ("FOIA"), 5 U.S.C. §552, shall be governed by the provisions of the FOIA.

SBUH agrees that it does not expect, nor will it ever seek to compel from EPA in any judicial forum, the payment of money, services or other thing of value from EPA based upon the terms of this MOU. The foregoing provision does not in any way affect any legal rights accruing to SBUH by virtue of any other law, contract and/or assistance agreement.

SBUH understands and acknowledges that EPA's relationship with SBUH in no way affects, alters or otherwise constrains EPA's right to provide similar (or identical) services to, or establish similar (or identical) relationships with, any other entity

SBUH understands that EPA's participation in this MOU does not constitute an endorsement, express or implied, of (a) any policy advocated by SBUH or (b) any goods or services purchased, offered or sold or utilized by SBUH in the accomplishment of any of the objectives of this MOU.

The parties agree that any copyrightable subject matter, including but not limited to journal articles, training, educational or informational material or software, created jointly by the parties from the activities conducted under the MOU may be copyrighted by the State University of New York at Stony Brook. The State University of New York at Stony Brook hereby grants to the government a royalty-free, nonexclusive, irrevocable right to reproduce, distribute, make derivative works, and publish or perform such work(s) publicly, or to authorize others to do the same on its behalf.

This MOU does not authorize SBUH to use any EPA logo, trademark or other intellectual property without prior approval of EPA. This MOU does not authorize EPA to use any SBUH logo, trademark or other intellectual property without the prior approval of SBUH.

The EPA enters into this MOU under the authority of Section 103 of the Clean Air Act, 42 U.S.C. §7403, Section 104 of the Clean Water Act, 33 U.S.C. §1254, and Section 8001 of the Solid Waste Disposal Act, 42 U.S.C. §6981, Section 6604 of the Pollution Prevention Act, and Section 324A of the Energy Policy and Conservation Act, which provide EPA with authority to undertake cooperative efforts with private organizations to promote the coordination and acceleration of research, studies, training, and other efforts to prevent, reduce and eliminate pollution.

This MOU does not create any right or benefit, substantive or procedural, enforceable by law or equity against SBUH or EPA, their officers or employees, or any other person. This MOU does not direct or apply to any person outside of EPA and SBUH.

## **V. Effective Date and Administration**

This MOU will become effective upon signature by the Regional Administrator of EPA Region 2 and the Chief Executive Officer of SBUH or their designees. It may be modified or amended by written agreement between the parties. This MOU will terminate at the end of five (5) years from the date of signature unless revised or extended at that time by written agreement of the parties. This MOU may be terminated at any time by either party upon the issuance of a written notice to the other party. The Parties will review annually the provisions of this MOU and its implementation.

Signed:

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George Pavlou  
Acting Regional Administrator  
U.S. EPA Region 2

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Dr. Steven L. Strongwater, MD  
CEO  
Stony Brook University Hospital

Date: \_\_\_\_\_

Date: \_\_\_\_